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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/853,274	05/11/2001	David A. Monroe	07-0161	5881

67589 7590 01/11/2008

MOORE LANDREY
1609 SHOAL CREEK BLVD
AUSTIN, TX 78701

EXAMINER	
VO, TUNG T	

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
01/11/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/853,274	MONROE, DAVID A.	
	Examiner	Art Unit	
	Tung Vo	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 09 October 2007.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-77 and 90-107* is/are pending in the application.

4a) Of the above claim(s) *78-89* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-77 and 90-107* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/11/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/09/2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-17, 21-58, and 62-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over DaGraca et al (US 6,646,676 B1) in view of Brodsky et al. (US 6,731,805).

Re claims 1 and 8, DaGraca teaches a method for collecting, selecting and transmitting data to selected stations on a network (FIGURE 2 of DaGraca, video data are generated and transmitted from cameras 201-202, which are disposed remotely in a network 211, video data are archived or recorded for subsequent selective viewing, see col. 5, line 9-15; and either local station 203 or remote station 210, see col. 4, line 30-40, col. 12, line 31-39), the transmitted data including at least one of a compressed digital still image and compressed digital motion video

(201 and 202 of fig. 2, Note the well known MPEG encoder (MPEG-1, MPEG-2, MPEG-4, and MPEG-7) encodes the captured images including still image (intraframe coding) and motion image (interframe coding) to produce encoded/compressed still image and encoded/compressed motion image), the method comprises the steps of:

a. collecting data based on an event occurring at the remote location (col. 5, line 16-23), wherein collected data is related to a scene (col. 8, lines 57-67);

generating from collected data motion histogram values using dc-images of the scene (col. 8, lines 57-col. 9, line12);

b. at the remote location generating a prioritized signal (a detected event by an event detector, 330 of fig. 2, when the accumulated detected event exceed to some threshold value) from indicating a priority (col. 6, line 1-5, 27-38, and/or col. 12, line 28-29, video data can also be prioritized by the description scheme instantiator, see col. 10, line 35-67; See also 340 of fig. 2, Note priorities can also be assigned as to the order of response activities);

c. if the prioritized signal meets a threshold value (330 of fig. 2, when the accumulated detected events by event detector exceed to some threshold value) indicating modification of the original scene (col. 3, lines 10-12, the security system takes an appropriate remedial action, to generate control signals in response to detecting the security events as modifying of the original scene);transmitting the prioritized signal to a receiving station located on a network (col. 6, line 47-67, col. 12, line 20-45); and

d. managing the transmitted prioritized signal at the receiving station (col. 12, line 20-45, i.e. prioritizing response activities is a form of managing prioritized signal at the local and/or remote surveillance station);

It is noted that DaGraca further suggests the well-known technique for detecting scenes changes using dc-images using color histogram from the dc-images (col. 8, lines 60-65) and modifications of the scene change detection technique may be mad (col. 11, lines 47-49).

However, DaGraca does not particularly teach generating from the collected date motion histogram values for regions of the scene, motion histogram values suitable for graphically depicting scene changes over time as claimed.

Brodsky teaches the control unit (20 of fig. 1, col. 14, lines 18-56) for generating from the collected date motion histogram values for regions of the scene (col. 15, lines 47-65), motion histogram values suitable for graphically depicting scene changes (figs. 5A and 5B) and the video signal is compressed (col. 5, lines 40-45).

Therefore, taking the teachings of DaGraca and Brodsky as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the teachings of Brodsky into the system of DaGraca in order to provide a highly accurate system and method for detecting events in surveillance video and images. Doing so would allow the receiving site to be able to provide data analysis and processing services for commercial purposes, thereby saving on the costs entailed in the development of independent computerization and data processing capabilities.

Re claim 2, DaGraca further teaches the prioritizing step the time and location of the event in the transmitted prioritized signal (see col. 6, line 27-38).

Re claim 3, DaGraca further teaches wherein the collected data includes an image signal and wherein the transmitted prioritized signal includes an image component (col. 6, line 27-38).

Re claim 4, DaGraca further teaches wherein the collected data defines an original scene and wherein the transmitted data is generated in response to a modification of the original scene, the method further comprising:

a. collecting the data on a pre-selected basis (col. 6, lines 63-67, Note user preferences are pre-selected basis; defining the selection of the event);

b. defining and transmitting an original scene to the remote station (I frames is considered original frame);

c. comparing subsequent scenes to the original scene (col. 8, lines 61 and 62);

d. transmitting only those subsequent scenes differing from the original scene. (See col. 6, line 47-67, col. 8, line 43 - col. 9, line 67 i.e. feature extraction and augmentation of the bitstream. In these segments, the original scene may be established by the I-frame, modification to the original scene may be effected by the P Page 5 and/or B-frame as expected in the disclosed MPEG coding scheme, which also governs transmission/coding of only difference data, and also content descriptions, which is governed by MPEG-7. Frames to be viewed for security interest are "selected". These selected frames are based on an "pre-defined" events; see col. 12, line 1-18).

Re claim 5, DaGraca further teaches wherein the comparing step is completed at the camera (see col. 5, line 1. Note: encoding is MPEG, which governs the comparing step i .e. frame differencing, col. 8, lines 61-62).

Re claim 6, DaGraca further teaches wherein the data is in the form of digital pixels and wherein the comparing step comprises identifying only those pixels altered from the original scene. (Note: MPEG encoding governs pixel data and differential encoding i.e. alteration of

difference pixels from the original scene establishes by the I-frame; and percentage are then determined from the image itself by using the dc value of the color of a macro-block as the color of every pixel that belongs to that macroblock. This briefly illustrates how the dominant color can be determined from the output of the symbol processor (450 of fig. 4)).

Re claim 7, DaGraca further teaches the step of generating a change histogram from the change information created in the comparing step (see col. 8, line 62-65).

Re claims 9 and 16, DaGraca further teaches the step of tagging each transmitted image with unique identifying data (see col. 6, line 47-67, i.e. the tagging data is governed by the content descriptions).

Re claim 10, DaGraca further teaches wherein the tagging step is performed at the remote location (based on figs. 2-3, the content description i.e. tagging takes place at the surveillance & control system 300, which is at a remote location in the network).

Re claims 11 and 25, DaGraca further teaches wherein the identifying data includes the date and time of the data defining a scene (see col. 6, lines 27-67. In this segment, the video data may also be tagged by user inputs, which include time/date customization).

Re claims 12 and 26, DaGraca further teaches wherein the identifying data further includes the duration of the data defining a scene (see col. 6, line 27-67. In this segment, select frames for summarizing video of interest implies a specific duration of a security scene).

Re claims 13 and 27, DaGraca further teaches a plurality of cameras and wherein the identifying data further includes a camera identifier (see fig. 2, the plurality of cameras is governed by 201-202, and since the cameras may be switched and video data may be routed in the network, see col. 7, line 1-8, camera identifiers would have been inherent and necessitated;

Note Using MPEG-7 descriptors, and training data, it becomes possible to extract security events such as accidents, assaults, traffic violations, etc. NZ-NS surveillance can also be used in crowed stores to detect shop-lifting, or in casinos to detect cheating; this indicates that the camera has been identified).

Re claims 14, 28, 29, and 30, DaGraca further teaches a visual monitor at the remote location, wherein transmitted data may be selectively displayed at the monitor (see fig. 2, 208 or 210 for example, also col. 4, line 60-64, col. 12, line 31-45. Selective viewing has been previously discussed in claim 1); wherein the managing step comprises generating an alarm at the receiving station (see col. 5, line 16-23, col. 12, line 31-39).

Re claim 15, DaGraca further teaches wherein transmitted data is displayed at the monitor in near real-time (the desire to achieve real-time performance is disclosed in DaGraca, see col. 3, line 42-52).

Re claim 17, DaGraca further teaches wherein the unique identifying data is displayed with the displayed data (see col. 6, line 27-47, which discloses selected frames and identifying data are being examined).

Re claim 21, DaGraca further teaches the step of storing the transmitted data at the remote location (see fig. 2: 207 and/or 208, 210, i.e. any of these elements is capable of remote storage over the network).

Re claim 22, DaGraca further teaches the step of retrieving the data from the stored data on command (see col. 5, line 9-15, which discloses user selected viewing of stored images, thus implying upon command).

Re claim 23, DaGraca further teaches the step of tagging each transmitted image with unique identifying data (see col. 6, line 47-67, i.e. the tagging data is governed by the content descriptions).

Re claim 24, DaGraca further teaches wherein the tagging step is performed at the remote location (based on figs. 2-3, the content description i.e. tagging takes place at the surveillance & control system 300, which is at a remote location in the network).

Re claim 31, see claim 21 .

Re claims 32-37, DaGraca further teaches the limitations as recited in these claims have been analyzed and rejected w/r to claims 1-7, 9-17 and 21-31.

Re claim 38, DaGraca further teaches including a central management system and wherein the prioritizing step occurs after the collected data is sent to the management system (fig. 2:300, see also discussion in claim 1 , also col. 5, line 25 - col. 6, line 67).

Re claim 39, DaGraca further teaches retransmission of the data based on the prioritization of the data at the central management system (see col. 5, line 25 - col. 6, line 67, which discloses detecting security events based on prioritization schemes), and then signaling such events to the rest in the network i.e., retransmission based on a customization scheme).

Re claim 40, DaGraca further teaches the retransmission step includes transmitting the data to selected recipients based on the prioritization step (see discussion of claim 39, also especially col. 6, line 27-46 and col. 12, line 20-29).

Re claim 41, DaGraca further teaches wherein the retransmission step includes generating a visual icon on a graphic display at a remote location (see col. 12, line 21- 29, i.e. PIP window serves as a visual icon).

Re claim 42, DaGraca further teaches the retransmission step includes generating a voice signal at selected remote locations (col. 12, line 21-29, i .e. recorded message).

Re claim 43, DaGraca further teaches the retransmission step includes a sub-step of defining a recipient hierarchy and retransmitting in sequence in accordance with the hierarchy (see col. 12, line 21-29, i.e. assigned priorities).

Re claim 44, DaGraca is silent in disclosing the step of providing a positive response signal to the central management system for indicating that a retransmitted signal has been received by a selected recipient. However, DaGraca discloses that Page 9 upon detection of an event, video and control signals are routed to other devices in the network for monitoring and controls (see col. 12, Line 20-29). In order for data to be properly routed through the network, acknowledgements of transmission and receipts from the devices in the network are inherent and necessitated.

Re claim 45, DaGraca further teaches the step of password encoding recipients (see col. 6, line 18-46, col. 7, line 1-8, the "user" as disclosed is understood as an authorized user).

Re claim 46, DaGraca further teaches the step of managing the system through the central management system by a selected recipient after a retransmitted message has been received (see col. 6, line 18-46).

Re claim 47, DaGraca further teaches wherein the prioritizing step occurs prior to the transmitting step. The limitations have been analyzed and rejected w/r to claims 1-3 above.

Re claim 48, DaGraca further teaches wherein the prioritizing step occurs at a first hierarchy prior to the transmitting step and at a second hierarchy after the transmitting step (see col. 6, line 27-38, which reads on the disclosed priority of contact).

Re claim 49, DaGraca further teaches the step of generating a notification signal in response to a transmitted prioritized signal (see col. 6, line 35-38, i.e. sending alerts).

Re claim 50, DaGraca further teaches the notification signal is transmitted to selected recipients on a network (see col. 6, line 27-38, which discloses the recipients are selected recipients).

Re claim 51 , DaGraca further teaches wherein the notification signal is repeatedly transmitted until a selected recipient responds to the notification signal (see col. 6, line 27-38, which discloses a "no response" provision. Thus, repeating the notification in the event of no response is implied).

Re claim 52, see claims 48-51 . Re claim 53, which further recites wherein the notification signal is transmitted to monitoring stations on a network (see fig. 2, col. 6, line 27-38, col. 12, line 20-45).

Re claim 54, DaGraca further teaches wherein the notification signal is transmitted via telephonic means (see col. 6, line 27-38).

Re claim 55, DaGraca further teaches wherein the notification signal is transmitted via e-mail (see col. 6, line 27-38).

Re claim 56, DaGraca further teaches wherein the e-mail further includes an attachment including additional, event specific data (see col. 6, line 27-38).

Re claim 57, DaGraca further teaches wherein the attachment is image data (see col. 6, line 27-38).

Re claim 58, DaGraca further teaches wherein the receipt and response to the notification signal is password protected (see discussion in claim 45. Also, the authorized user access implies password protection).

Re claim 62, see discussion in claims 1-4, 43-48.

Re claim 63, see discussion in claims 6-7.

Re claim 64, see discussion in claims 1-4, 15. Re claim 65, which further recites including the step of compressing the data prior to the transmitting step (see col. 5, line 1-8).

Re claim 66, DaGraca further teaches wherein the compressing step further includes minimizing the amount of data to be transmitted without any loss of critical change data (see claim 65; minimizing the amount of data to be transmitted without any loss of critical change data is inherently governed by MPEG-based coding).

Re claim 67, DaGraca further teaches the steps of defining the data in blocks of data and tagging each block of data with a unique identifier for enhancing storage, search and retrieval (see discussion in claims 65-66; MPEG-based coding governs defining image data into blocks, and coding them according to block data identifiers) i.e. tags).

Re claim 68, DaGraca further teaches the step of quantifying the amount of change between scenes (see discussion in claims 65-67; MPEG-based coding governs quantifying the amount of change between scenes. That is the whole essence of MPEG-based coding).

Re claim 69. DaGraca further teaches the steps of quantifying the amount of change between scenes and reporting such as an indication of level of motion (see discussion in claims 65-68, MPEG-based coding governs quantifying change between scenes as motion vector).

Re claim 70, DaGraca further teaches the step of ignoring anticipated or minimal changes in a scene by applying pre-selected criteria (see col. 12, line 1-19, which defines this aspect based on MPEG coding).

Re claim 71, DaGraca further teaches the step of blocking of specified regions of a scene to further enhance the monitoring, transmission and definition of the changes in the scene of a frame-to-frame basis (MPEG-based coding also governs this aspect via non-coding of background data, only the change between scenes).

Re claim 72, DaGraca further teaches wherein the managing step further includes the step of correlating correlate motion between two or more cameras to determine if a motion detection event should be identified in order to eliminate false alarms (see col. 12, line 1 -20).

Re claim 73, DaGraca further teaches the step of controlling all functions and steps from a single interactive monitor screen (see fig. 2: 300 and its respective disclosure).

Re claim 74, DaGraca further teaches the step of providing simultaneous access for two or more monitor screens each allowing functions of the system to be controlled by that interactive monitor (see col. 12, line 20-45, i.e. local and remote monitoring and interactive controls are capable).

Re claim 75, DaGraca further teaches the step of detecting the appearance or disappearance of an object (col. 11, line 35-46).

Re claim 76, DaGraca further teaches wherein the notification step includes detection of the presence of unauthorized events in a monitored zone and the. transmitting step includes transmitting the detection to selected remote stations on a network on a near Page 13 real-time

basis (see discussion in claims 1-4 and 1; detection of security events as disclosed in DaGraca implies unauthorized events in a monitored zone. This detection process is real-time).

4. Claims 18-20, 77 are rejected under 35 U.S.C. 103(a) as being unpatentable DaGraca et al (US 6,646,676 B1) in view of Brodsky et al. (US 6,731,805) as applied to claims 1-4, 14, and 16, and further in view of Kohno et al, US 2003/0048356 A1.

Re claim 18, the combination of DaGraca and Brodsky fails to further disclose as claimed the monitor further includes a map of the scene. However, such feature is well known and obvious as evidenced by Kohno (fig. 5, para 0062-0068), which utilizes a monitor with a map of the scene to provide a layout of the surveillance area and to indicate to a user the current state of the selected video camera. Kohno further suggests the disclosure is to be accorded the broadest interpretation so as to encompass all such modifications and equivalent structures and functions.

Therefore, taking the teachings of DaGraca, Brodsky, and Kohno as a whole, it would have been obvious to one of ordinary skill in the art to incorporate a monitor including a map of the scene of Kohno into the combined method of DaGraca and Brodsky in order to provide the occurrence event within the selected camera field of view included the map to a display for viewing so that the camera is updated in the image information display region, the property to confirm that even an image having little movement (image difference) is normally received and is operating can be easily improved as suggested by Kohno.

Re claim 19, DaGraca further teaches a plurality of cameras and wherein an icon representing each camera is provided on the map above). (See rejection of claim 18 Re claim 20,

which further recites including an indicator that is activated when the data from a specific camera is displayed on the monitor and deactivated at other times (See Kohno, para 0067-0068).

Re claim 77, DaGraca further teaches wherein the notification step includes routing detected events, whereby the location of the incident may be visually located on a map at the remote station. (See discussion in claims 17-18 above).

5. Claims 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over DaGraca et al (US 6,646,676 B1) in view of Brodsky et al. (US 6,731,805) as applied to claims 3 and 21 above and further in view of Leung et al, (US 6,643,779).

Re claim 59,the combination of DaGraca and Brodsky does not particularly disclose keeping a log of personnel access and an image of the access as claimed. However, such convention is well known and obvious as evidenced by Leung (see col. 3, line 38 - col. 4, line 10, col. 5, line 63-67), which discloses an internet-based security terminal that keeps track of access log and also suggests having a camera to capture video at the security terminal for authentication of personnel access.

Therefore, taking teachings of DaGraca, Brodsky, and Leung as a whole, it would have been obvious to one of ordinary skill in the art to incorporate the features of keeping a log of personnel access and an image of the access of Leung into the combination method of DaGraca and Brodsky in order to provide different security levels to satisfy different security requirements for devices. Doing so would allow the user that is capable of accessing the computer network to setup and maintain the security system.

Re claim 60, DaGraca further teaches the step of searching the database by any combination of specific individual, class of individual, by successful accesses, by unsuccessful accesses, by specific portal of entry with qualifiers of time, day, and location (See Leung, col. 3, line 38 - col. 4, line 10).

Re claim 61, the limitations as claimed have been analyzed and rejected w/r to claims 59-60 above.

Response to Arguments

6. Applicant's arguments filed 04/23/2007 have been fully considered but they are not persuasive.

The applicant argued that DeGraca teaches away from the step including generating motion histogram value for regions of the scene, the motion histogram value being suitable for graphically depicting magnitude of sensed scene change over time, and there is no suggestion to combine the teachings of DeGarca and Brodsky.

The examiner respectfully disagrees with the applicant. It is submitted that DeGraca teaches the detection scene change (col. 8, line 57-col. 9, line 12) using dc-images, wherein the color histogram or color structure histogram are determined from the dc-images of the monitoring area. Brodsky teaches the control unit (20 of fig. 1, col. 14, lines 18-56) for generating from the collected date motion histogram values for regions of the scene (col. 15, lines 47-65), motion histogram values suitable for graphically depicting scene changes (figs. 5A and 5B), and the control unit is used in scene change detection. Therefore, one skill in the art would be obviously motivated (DeGraca: col. 12, lines 47-49; and Brodsky: col. 16, lines 13-19)

to combine DeGaca and Brodsky for providing any common processing required by the two or more techniques may be consolidated for efficiency.

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion is motivated to combine as disclosed by DeGraca: col. 12, lines 47-49; and Brodsky: col. 16, lines 13-19.

8. Claims 90, 94-98, and 100-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al. (US 6,493,466) in view of Shibata et al. (US 5,446,491).

Re claims 90 and 101, Honda teaches a camera (601 of fig. 6) adapted to be connected to a packet network (501 of fig. 5; Note synthesizing means for synthesizing information on the frame rate of the compressed image data), the camera (601 of fig.6) adapted to capture a time series of still frame images in a field of view (JPEG compression), the time series of still frame images corresponding respectively to a time series of scenes in the field of view, the camera being adapted to transmit over the packet network sequences of data packets (110 of fig. 5), certain of the sequences each including a respective compressed set of digitized pixel data (109

of fig. 5), each compressed set of digitized pixel data representing a respective still frame image (JPEG compression encoder 109 of fig. 5), the camera comprising:

a digital encoder (100 of fig. 5) adapted to produce digitized pixel data in digital format, the digital encoder being operable to produce a first set of digitized pixel data representing a first still frame image of a first scene (JPEG compression is known for still image or frame compression), the digital encoder being operable to produce a second set of digitized pixel data representing a second still frame image of a second scene (JPEG compression for second scene), the first scene preceding the second scene in the field of view;

a memory (602 of fig. 6, 101 of fig. 5, a digital image) adapted to store the first set of digitized, pixel data;

a difference algorithm (106 of figs. 5 and 9) embodied in suitable media, the difference algorithm when executed being adapted to produce a set of pixel difference values (901 and 902 of fig. 9, pixels units of images), the set of pixel difference values being calculated by comparison (903 of fig. 9) of digitized pixel data selected from the first set of digitized pixel data (901 of fig. 9) with corresponding digitized pixel data selected from the second set of digitized pixel data (902 of fig. 9), a selected set of pixel difference values (904 of fig. 9) being compared to at least one threshold value (905 and 906 of fig. 7, see 107 of fig. 5), comparison of the selected set of pixel difference values and the at least one threshold value providing an indicator (Determination Unit indicates a motion change or a change amount between images), the indicator in at least one potential circumstance providing indication of an event (change or not change within the scene);

a compression algorithm (109 of fig. 5) embodied in suitable media, the compression algorithm being executable to compress the second set of digitized pixel data only when the indicator provides indication of the event (change in the scene), the compression algorithm when executed being adapted to compress the second set or digitized pixel data to produce a compressed second set of digitized pixel data; and

the camera (601 of fig. 6) being adapted to send over the packet network in a second sequence of data packets the compressed second set of digitized pixel data only when the indicator provides indication of the event (compressing when a large amount change).

It is noted that Honda does not particularly teach or disclose a packet switching network in a sequence of compressed or encoded data packets and a network interface adapted to transmit over the packet switching network sequences of data packets, the network interface including a network stack adapted to produce data packets as claimed..

However, Shibata teaches a packet switch network for transmitting switched encoded video packets (406 of fig. 4; col. 5, lines 11-15) and a network interface (406 of fig. 4) adapted to transmit over the packet switching network sequences of data packets, the network interface including a network stack adapted to produce data packets.

. Therefore, taking the teachings of Honda and Shibata as a whole it would have been obvious to one of ordinary skill in the art to modify the packet switch network of Shibata into the system of Honda in order to provide the camera system in which video communications to and from a plurality points can be implemented without using any connecting device dedicated to the communications.

Re claim 94, Honda further teaches at least one comparison value being derived from the selected set of pixel difference values, comparison of the at least one comparison value and the at least one threshold value providing the indicator (106 and 107 of fig. 9).

Re claim 95, Honda further discloses a processor adapted to drive execution of at least the difference algorithm (106 of fig. 9).

Re claim 96, Honda further discloses a memory adapted to store the second set of digitized pixel data (105 of fig. 5).

Re claim 97, Honda further teaches the difference algorithm being embodied in media which includes executable software (1914, 1913 of fig. 19).

Re claim 98, Honda further teaches the compression algorithm being embodied in media which includes an application specific integrated circuit (fig. 17).

Re claim 100, Honda further teaches a compression algorithm embodied in suitable media, the compression algorithm when executed being adapted, initially to compress the first set of digitized pixel data to produce a compressed first set of digitized pixel data (fig. 17); the camera being adapted initially to send over the packet switching network in a first sequence of data packets the compressed first set of digitized pixel data, the first sequence of data packets when sent over the packet switching network preceding the second sequence of data packets (501 of fig. 5).

9. Claims 91-93, 99, and 102-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al. (US 6,493,466) in view of Shibata et al. (US 5,446,491) as applied to claim 90, and further in view of Brodsky et al. (US 6,731,805).

Re claims 91-93, 99, and 102-107, Honda teaches a camera (601 of fig. 6) adapted to be connected to a packet network (501 of fig. 5; Note synthesizing means for synthesizing information on the frame rate of the compressed image data), the camera (601 of fig.6) adapted to capture a time series of still frame images in a field of view (JPEG compression), the time series of still frame images corresponding respectively to a time series of scenes in the field of view, the camera being adapted to transmit over the packet network sequences of data packets (110 of fig. 5), certain of the sequences each including a respective compressed set of digitized pixel data (109 of fig. 5), each compressed set of digitized pixel data representing a respective still frame image (JPEG compression encoder 109 of fig. 5), the camera comprising:

a digital encoder (100 of fig. 5) adapted to produce digitized pixel data in digital format, the digital encoder being operable to produce a first set of digitized pixel data representing a first still frame image of a first scene (JPEG compression is known for still image or frame compression), the digital encoder being operable to produce a second set of digitized pixel data representing a second still frame image of a second scene (JPEG compression for second scene), the first scene preceding the second scene in the field of view;

a memory (602 of fig. 6, 101 of fig. 5, a digital image) adapted to store the first set of digitized, pixel data;

a difference algorithm (106 of figs. 5 and 9) embodied in suitable media, the difference algorithm when executed being adapted to produce a set of pixel difference values (901 and 902

of fig. 9, pixels units of images), the set of pixel difference values being calculated by comparison (903 of fig. 9) of digitized pixel data selected from the first set of digitized pixel data (901 of fig. 9) with corresponding digitized pixel data selected from the second set of digitized pixel data (902 of fig. 9), a selected set of pixel difference values (904 of fig. 9) being compared to at least one threshold value (905 and 906 of fig. 7, see 107 of fig. 5), comparison of the selected set of pixel difference values and the at least one threshold value providing an indicator (Determination Unit indicates a motion change or a change amount between images), the indicator in at least one potential circumstance providing indication of an event (change or not change within the scene);

a compression algorithm (109 of fig. 5) embodied in suitable media, the compression algorithm being executable to compress the second set of digitized pixel data only when the indicator provides indication of the event (change in the scene), the compression algorithm when executed being adapted to compress the second set or digitized pixel data to produce a compressed second set of digitized pixel data; and

the camera (601 of fig. 6) being adapted to send over the packet network in a second sequence of data packets the compressed second set of digitized pixel data only when the indicator provides indication of the event (compressing when a large amount change); at least one comparison value being derived from the selected set of pixel difference values, comparison of the at least one comparison value and the at least one threshold value providing the indicator (106 and 107 of fig. 9); a processor adapted to drive execution of at least the difference algorithm (106 of fig. 9); a memory adapted to store the second set of digitized pixel data (105 of fig. 5); the difference algorithm being embodied in media which includes executable software (1914,

1913 of fig. 19); the compression algorithm being embodied in media which includes an application specific integrated circuit (fig. 17); a compression algorithm embodied in suitable media, the compression algorithm when executed being adapted, initially to compress the first set of digitized pixel data to produce a compressed first set of digitized pixel data (fig. 17); the camera being adapted initially to send over the packet switching network in a first sequence of data packets the compressed first set of digitized pixel data, the first sequence of data packets when sent over the packet switching network preceding the second sequence of data packets (501 of fig. 5).

It is noted that Honda does not particularly teach or disclose a packet switching network in a sequence of compressed or encoded data packets and a network interface adapted to transmit over the packet switching network sequences of data packets, the network interface including a network stack adapted to produce data packets as claimed.

However, Shibata teaches a packet switch network for transmitting switched encoded video packets (406 of fig. 4; col. 5, lines 11-15) and a network interface (406 of fig. 4) adapted to transmit over the packet switching network sequences of data packets, the network interface including a network stack adapted to produce data packets.

Therefore, taking the teachings of Honda and Shibata as a whole it would have been obvious to one of ordinary skill in the art to modify the packet switch network of Shibata into the system of Honda in order to provide the camera system in which video communications to and from a plurality points can be implemented without using any connecting device dedicated to the communications; and the combination of Honda, Shibata, and Brodsky further teaches the camera being adapted to send over the packet switching network in a sequence of data packets a

set of data representing the histogram and the compressed second set of digitized pixel data (406 of fig. 4, Shibata), such that recipient monitoring station can display for viewing the histogram (1204 of fig. 12, Honda), the compressed selected set of digitized pixel data (100 of fig. 5, Honda).

It is further noted that the combination of Honda and Shibata does not particularly teach the difference algorithm when executed being adapted to produce a histogram, the histogram summarizing a selected set of pixel difference values; the camera being adapted to send over the packet switching network in a sequence of data packets a set of data representing the histogram; the histogram including a set of indicator bar values, each indicator bar value corresponding to a respective region of the field of view, each indicator bar value representing a selected set of pixel difference values in the respective region; each histogram bar value representing a count of a selected set of pixel difference values each exceeding a threshold value in the respective region as claimed.

However, Brodsky teaches difference algorithm (20 of fig. 1) when executed being adapted to produce a histogram (col. 14, lines 18-37), the histogram summarizing a selected set of pixel difference values (col. 14, lines 24-25); the camera being adapted to send over the packet switching network in a sequence of data packets a set of data representing the histogram (the combination of Honda and Shibata); the histogram including a set of indicator bar values (figs. 5A and 5B), each indicator bar value (a and b of figures 5A and 5B) corresponding to a respective region of the field of view, each indicator bar (4.6-4.7, number of pixels is 10, see fig. 5A) value representing a selected set of pixel difference values in the respective region (a of fig.

5A); each histogram bar value representing a count of a selected set of pixel difference values each exceeding a threshold value in the respective region (col. 14, lines 31-37).

Therefore, taking the teachings of Honda, Shibata, and Brodsky as a whole, it would have been obvious to one of ordinary skill in the art to modify the teachings of Brodsky into the combined teachings of Honda and Shibata in order to provide a highly accurate system for detecting events in surveillance video without a high incidence of incorrect identifications of such event.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jones et al. (US 5,587,928) discloses computer teleconferencing method and apparatus.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Tung Vo
Primary Examiner
Art Unit 2621